

**Southern African Development Community
Disaster Management Steering Committee**

**6 - 9 December 2000
Harare, Zimbabwe**

Volume II

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Southern African Development Community Disaster Management Steering Committee

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Analytical Matrix of Disasters in the SADC Region

This matrix shows the frequent disaster hazards in the region and their common causes. The questions to be answered for planning include:

1. Once the causes are known, what is the explanation and solution?
2. At what level each solution applies?
3. What are the essential intuition/s or role players?
4. What resources are required for the proposed solutions?
5. What is the possible source of those resources?

Countries	Common Causes	Frequency	Potential Vulnerable Areas/Communities	Angola	Botswana	Congo D.R.	Lesotho	Namibia	Malawi	Mauritius	Mozambique	Seychelles	Swaziland	South Africa	Tanzania	Zambia	Zimbabwe
Disaster Hazard																	
HIV/AIDS	<ul style="list-style-type: none"> Poverty Acculturation Malnourishment Poor health system 	Ever Present	Poor communities/ sexually active population Belt of identify dilemma														
Drought	<ul style="list-style-type: none"> Population growth Agricultural practices Overgrazing Global warming 	Seasonal: At least every 3 years	Rural community Subsistence farmers														
Floods	<ul style="list-style-type: none"> Poor water management Infrastructures Ill residential locations Riparian agriculture 	Rain season every year	Rural Counties Urban Dwellers														
Cyclones and Localized Cyclones	<ul style="list-style-type: none"> Natural 	November/ December and March /April	Indian Ocean Belt Countries														

Countries	Common Causes	Frequency	Potential Vulnerable Areas/Communities	Angola	Botswana	Congo D.R.	Lesotho	Namibia	Malawi	Mauritius	Mozambique	Seychelles	Swaziland	South Africa	Tanzania	Zambia	Zimbabwe
War	• Deep seated differences on socio-political and economic organization of the society and management of the commonwealth	Since 1960s	Poor communities especially rural Economic infrastructure Market confidence														
IDPS																	
Refugees	• Economic hardship and armed conflicts	Pervasive	Exiled people and local residents														
Veldt Fires	• Poor public education	Often in dry season	Rural community and wild life														
Epidemics	• Poor sanitary services	Pervasive	All resident														
Pest Infestation	• Natural and poor control measures/no resources	Pervasive	Farmers														
Chemical Spills	• Poor safety measures and weak coastal patrol/guards	Often	Marine live and fishery industry														
Work Accidents	• Poor safety measures and weak structures	Very often	Workers														
Transport and Industrial Accidents	• Poor safety measures and weak structures	Very often	Workers														
Snow	• Low temperatures	Seldom	Residents														
Civil Strives	• Economic hardship/economic growth syndrome	Often	Poor communities														
Landslides	• Floods	Seasonal	Residents of high veldts														
Tidal Waves		Every 5 – 8 years	Southern and Eastern communities														

Countries	Common Causes	Frequency	Potential Vulnerable Areas/Communities	Angola	Botswana	Congo D.R.	Lesotho	Namibia	Malawi	Mauritius	Mozambique	Seychelles	Swaziland	South Africa	Tanzania	Zambia	Zimbabwe
Oil Spills	• Shipwrecks	Occasional	Fishing industry, marine life and coastal communities														
Disaster at Sea	• Poor safety measures and poor communication	Very often	Small scale fishery														
Locusts																	
Army Worms																	
Earthquakes																	
Terrorism	• Cultural, religious and political beliefs	Seldom	Residents and investors														
Criminality	• Poverty and greediness	Very often	Urban dwellers and investors														
Famine	• Drought, floods and war	Often	Poor communities														
Proliferation of Small Arms	• Ill designed demobilization • Ill reintegration of war veterans • Poverty • Greediness • Poor policing and protracted armed conflicts	Pervasive	Residents and investors														
Anti-Personnel Landmines	• Armed conflicts	Pervasive	Residents and investors														
Mudslide	• Poor design of structures	Often in rainy seasons	Residents														
Localized Tornadoes	• Natural	Seldom	Residents														
Informal Settlement (Squatters)	• Unequal distribution of land	Very often	Poor communities														

Countries	Common Causes	Frequency	Potential Vulnerable Areas/Communities	Angola	Botswana	Congo D.R.	Lesotho	Namibia	Malawi	Mauritius	Mozambique	Seychelles	Swaziland	South Africa	Tanzania	Zambia	Zimbabwe
Pollution																	
Hazardous Waste																	
Mining Disasters	• Poor safety measures	Occasional	Mine workers and migrant laborers														
Radiation	• Safety of nuclear plants	Unexpected	Neighbor community														
Pest Control with Chemicals	• Underestimate collateral effects of chemical products	Often	Agricultural workers and residents														
Lightening	• Natural	Rainy seasons	Residents														
Livestock Diseases Epidemics	• Natural and poor farming practices	Often	Subsistence and commercial														
Hailstorms	• Natural	Rainy season	Residents of high veldts														
Stampedes	• Natural	From time to time															

04/12/00 SADC Disaster Committee Meeting, 7 – 8, 2000 — Harare, Zimbabwe

Conference Methodology

1. Conference Goal

The goal of this conference is to develop the framework, budget, and terms of reference toward the creation of a sustainable regional disaster management entity.

2. Conference Purpose

This conference has four purposes, and each of these purposes is a step toward the conference goal:

1. Each participant will begin the work of the conference by presenting a Readiness Self Assessment in order that the conference proceedings are based on an up-to-date picture of the state of disaster readiness and response capacities in each of the member states.
2. Review the joint SADC-UN assessment of regional needs
3. Discuss best practices: disaster response structures, policies, equipment, and staffing: who does what best, and how can we make use of that expertise.
4. Create an operational network of disaster authorities and other professionals, including NGOs and international organizations.

3. Conference Participants

Each SADC member state has been invited to propose two leading disaster authorities to attend the conference. These 28 or so individuals are the primary participants, on whom the conference outcomes really depend. Therefore, these participants will meet in private session on the evening of Wednesday, December 6th to discuss expectations and methods of information sharing and decision taking. These participants will also meet privately on Saturday, December 9th from 8:30 until noon in order to reach consensus on next steps, assignments, and responsibilities.

In addition, several other persons will join the group for the open sessions all day December 7th and 8th. As the host nation, Zimbabwe will be sending several government representatives, and a number of NGOs, international organizations, donor nations, and UN representatives have been invited to be part of the discussions on those two days. Their presence serves several purposes:

1. They will be an important part of an operational network, and this conference provides both a formal and informal mechanisms for the member state participants to forge relationships with them.
2. Any disaster entity that this conference creates will require some external support for programs. Therefore, early input from the traditional bilateral and multilateral donors is critical to generate this support.
3. The “best practices” discussion will be enriched by the presence of experts from a wide variety of organizations and regions of the world.

4. Conference Proceedings

All sessions of this conference will be plenary, with all invitees present. There is a separate room for informal gatherings and discussions, however. It is called the Board Room, and it is on the 17th floor. Feel free to use it at any time.

Most importantly, the SADC Secretariat chose the work participant rather than “delegate” very carefully. Your full and active participation is critical to the strength and the integrity of conference outcomes.

5. Conference Evaluation

There will be an evaluation form for each of you to complete both before and after the conference.

6. Conference Notes and Summaries

There will be simultaneous translation (English-Portuguese) throughout the meeting, as well as two scribes/note takers. A summary of the previous day’s discussion will be given to you each morning of the conference.

A final conference report will be ready within two weeks of the end of the sessions.

The conference staff includes a facilitator, two scribes, two translators, a logistician, a word processing expert, and two or three assistants. Staff will be identified by nametags with red ribbons. Please feel free to call on them for assistance.

Disaster Preparedness In Zimbabwe: Status Report

1. Introduction

Zimbabwe has a population of about 12 million people. About 75% of the population live in rural areas. The country's major hazards are drought, flooding, epidemics, public transportation accidents, industrial accidents, forest fires and environmental degradation.

2. Civil Protection Policy In Zimbabwe

National policy for civil protection states that: *“every citizen of this country should assist where possible to avert or limit the effects of a disaster.”* Central Government initiates disaster preparedness programmes through relevant sector ministries with local administration taking the responsibility for implementing and maintaining its effectiveness.

3. Legislation

Ministry of Local Government, Public Construction and National Housing (MLG, PW & NH) is charged with the coordinative role as empowered by the Civil Protection Act No.5 of 1989. The Act provides for:

- Special powers designed to establish, coordinate and direct the activities of both the public and private emergency services.
- Guidelines for action and maximum use of resources since disaster mitigation requires a multisectoral and interdisciplinary approach.
- The establishment of a National Civil Protection Fund that receives money from both Government and the public.

The fund shall be applied to:

- i. research and training in order to promote Civil Protection
- ii. acquisition of necessary property in order to promote the objects of the fund.
- iii. the cost of any scheme which the Minister considers to enhance Civil Protection measures.
- iv. other expenses arising from the establishment and maintenance of the fund.

The Civil protection Act is currently under review in order to address legislation gaps in the areas of fire and ambulance services, and enforcement of sectoral preparedness planning.

4. Civil Protection Organisation In Zimbabwe

A National Civil Protection Coordination Committee (NCPCC) is responsible for the execution of civil protection functions and its mandate is derived from Section (41)(2) of the Civil Protection Act No.5 of 1989. Permanent members of the NCPCC are senior officers selected from Government Ministries / Departments, Parastatals and NGOs. Other members especially from the private sector are co-opted as dictated by circumstances. The multi-sectoral representation is maintained at the Provincial and District levels. However there are marked variations in representation as some organisations remain centralized, while those that are decentralised their representation still varies in terms of staff grades.

In addition to Ministries having special responsibilities according to their specialties, members of the NCPCC, PCPCC and DCPC are grouped into functional sub-committees namely:

- Food supplies and food security chaired by Ministry of Public Services Labour and social Welfare.
- Health, Nutrition and Welfare, chaired by Ministry of Health and Child Welfare;
- Search, Rescue and Security , chaired by Zimbabwe Republic Police;
- International Cooperation and Assistance, chaired by Ministry of Finance;
- The Minister is helped in administering the Civil protection and its policy by a series of administrative echelons starting at national and going down to district level.

5. Departmental Profile

In Zimbabwe disaster management is a public service and is coordinated by the Department of Civil Protection in the Ministry of Local Government, Public works and National housing. The Department is headed by a Director and a staff of 7 officers at Head office. Its work is facilitated by Provincial Administrators and District Administrators at those levels. ,

The Directorate through the Civil Protection Act is tasked with the responsibility for emergency management and disaster prevention of both natural and man made hazards. Its major function is to prepare for, prevent where possible and mitigate the effects of disasters.

6. Mission Statement

To provide for and ensure optimal. emergency preparedness and disaster prevention at the individual, community, sectoral, local authority and national level through regulatory mechanisms and coordinated strategic planning for emergencies.

7. Major Activities

Preparedness Plans

The Department has identified at risk institutions and sectors and is working with them to develop effective preparedness plans.

Public Awareness Campaigns

Public awareness campaigns on seasonal hazards (wet and dry season) are conducted regularly before the onset of each respective season using both electronic and print media. The main aim of the exercise is to minimize risks /hazards associated with the particular season .

Staff Development

A needs assessment based staff development programme has been developed, however it is hampered by lack of funding.

Disaster Response-Cyclone Eline

The Cyclone Eline which hit some parts of the country on 22nd February 2000 left a trail of destruction and deaths through flooding, powerful winds and subsequent massive landslides and rockfalls. Cyclone Eline had serious devastating effects on homes, crops, livestock, plantations and on infrastructure such as bridges, roads, telecommunication, electricity, water supplies. The task of rescuing the affected population was completed in the first fortnight of the disaster and the provision of basic needs continues.

Progress on infrastructural rehabilitation has been slow particularly for roads and bridges due to inadequate resources.

Constraints and Needs

- Equipment:
 - ♦ rescue

- ♦ communications
- ♦ early warning
- Inadequate funding
- Legislation gaps
- Staff development

Disaster Preparedness in Tanzania: Presentation to the Southern Africa Development Community Meeting in Harare, Zimbabwe 7 – 8 December 2000

By MS. M.H. Bilia, Assistant Director, Disaster Management Department of Tanzania

1. General Information

Tanzania is one of the countries in the Great Lakes region in Africa. It is in the Eastern part of the African continent bordering the Indian Ocean. It has an area of 945,000 square kilometers with a population of about 31,056,000. The population growth rate is 2.824 percent. Gross National Product per capita is US\$239 (1997 figure).

Main Hazards

The country's main hazards include the following:

- Drought
- Floods
- Land slides
- Epidemics
- Pest infestation
- Earthquake
- Accidents
 - ♦ Marine
 - ♦ Vehicles
 - ♦ Trains
 - ♦ Mines
- Fire
 - ♦ Urban
 - ♦ Bush

Civil strife in neighboring countries which creates refugee flows.

2. Disaster Reduction Efforts To Date

Measures introduced by the government of Tanzania to reduce natural disaster impact since 1990 are as follows:

Act of Parliament

Parliament enacted a Disaster Relief Coordination Act No. 9 of 1990. This act aimed at maintaining and operating a system for the anticipation, coordination and control of disastrous situation and the organization of relief.

However, experience has shown that review of this act is now overdue. As such Tanzania under the Disaster Management Project has decided to make amendments to the Act so that it can comply with the Disaster Management notion. It will focus in management of disaster activities rather than coordination of disaster relief.

Other Major Reduction Efforts

Other major reduction efforts apart from establishment of an Act of Parliament are:

1. The introduction of early warning systems and crop monitoring unit in the Ministry of Agriculture. The unit is required to produce periodic reports on the food situation in the country. Consequently in collaboration with the Department of Meteorology (the department responsible for weather forecasting) the unit produces reports on the food crop production status for each season and advises on planting times as well as planting early maturing drought tolerant crops.
2. The Agriculture and Livestock policy that emphasize land conservation, reduced over grazing and farming systems which compact soil.
3. The National Environmental Policy that intends to ensure sustainability, security and equitable use of resources, to prevent and control the degradation of land, water, vegetation and air; and to raise public awareness and understanding of essential linkages between environment and development, and promote individual and community participation in environmental action.
4. National land use policy of 1991 emphasizes combating desertification and soil erosion through the introduction of land tenure systems that maximize land care.
5. Empowerment of the National Environmental Management Council (NEMC), which has responsibility for ensuring sound management of the environment (air, water, land and organisms).
6. Other efforts in land conservation include an a- forestation campaign, use of improved charcoal stoves, and reduced animal grazing and improved farming systems.

7. Regarding drought reduction, the government has established strategic grain reserves, introduced irrigation schemes, improved storage systems, introduced rain water harvesting, constructed earth dams and encouraged adopting traditional coping mechanisms.
8. People are severely discouraged from living and cultivating near or along valleys and other areas prone to flood disaster.
9. The Ministry of Health and Community Development policy on population reduction is strongly proclaimed. Seminars and workshops targeting population reduction are carried out frequently at different levels.
10. Laws and regulations have been enacted to reduce accidents and fires.

3. Disaster Experiences and Recent Disasters

Disasters in Tanzania 1995 to 2000

Year	Hazard	Disaster Impact	Measures
1996–1997 1998–1999 1999–2000	Drought	<ul style="list-style-type: none"> Created food shortage to about 3.9 million people. Increase in price of food staples. Reduced farmer's income. Deaths in local communities 	<ul style="list-style-type: none"> The Government of Tanzania and the international community through the World Food Program provided food relief. Early warning information to farmers and the public.
1997–1998	Floods	<ul style="list-style-type: none"> Destroyed agricultural production Damaged infrastructures Food shortages Destruction of economic and social infrastructure Private property destruction Mine floods and more than 100 deaths Cargo congestion in Dar-es-Salaam harbor estimated to be more than 60,837 metric tons because of disrupted transportation network 	<ul style="list-style-type: none"> Emergency camps were constructed in Dar-es-Salaam Distribution of food relief and equipment The Army was used to rehabilitate and reconstruct bridges and major sections of potable water supply networks
1998	Bombing of the American Embassy in Dar-es-Salaam	<ul style="list-style-type: none"> 11 deaths Personal property and infrastructure damage 	
October 2000	Earthquake near Lake Tangayika	<ul style="list-style-type: none"> Personal property destroyed 2 deaths 	
November 2000	Flood in Mwanza City	<ul style="list-style-type: none"> Damaged infrastructure 32 deaths 300 displaced people 	<ul style="list-style-type: none"> The Government of Tanzania, NGO's and religious organizations provided food, shelter and clothing for flood victims

4. Achievements To Date

To cater to disaster management in the country, following the Act No. 9 of 1990:

1. The Government disaster management bodies include the Parliament and the cabinet at the national level, as well as the Tanzania Disaster Relief Coordination Committee (TANDREC), which was established by the Act. There are also subcommittees under TANDREC and the Disaster Management Department coordinates all activities. International and some local NGOs are members of TANDREC sub committees. Consequently, there are established disaster committees at regional, district, ward, and village levels.
2. The emergency budget for disaster response is carried out at National level and the disaster management department is responsible for budgeting. However after completing necessary amendments to the Act, it is expected that every institution will budget for disaster reduction under its development activities.
3. According to the existing land use plans, demarcation of some natural forests has been done. This is implemented together with identification of village boundaries and land for residential use.
4. Under UNDP assistance, the department has drafted the following:
 - a. Disaster management policy
 - b. Enabling legislation
 - c. Training needs assessment
 - d. Risk assessment and vulnerability analysis framework
 - e. Disaster management plan framework
 - f. Management information system
 - g. Public awareness programme

These documents help the department in implementing some disaster preparedness activities.

5. The department in collaboration with other partners formed the Food Security Information Team (FSIT, which comprises government, NGOs, etc. and helps in

the collection and sharing of information as well as assessing food and crop production.

6. Requirement:
7. Strengthening the disaster management department (the focal point) and committees through training.
8. Mapping of hazards, risks and vulnerabilities.
9. Preparation of sectoral, regional and district disaster management plans.
10. Inventory all available resource organizations with their roles and responsibilities.
11. Mapping of temporary shelter and possible sources and location of all relief services. This could be done by preparing a detailed inventory for all disaster response requirements
12. Public awareness programmes in disaster management, preparedness and mitigation'
13. Establish national and regional emergency committees, which comprise all required sectors in fighting the disaster. Have regular rehearsals and exercises.

Related Documents

“SADC Health Sector Strategic Plan for Disaster Management” (Done at a meeting held in Pretoria, 16-16 August 2000.)

“First Meeting of the SADC Disaster Management Committee and Technical Planning Seminar” (Agenda)

“SADC Disaster Management Committee Conference – Conference Methodology”

“Report of the SADC Working Group on Disaster Management”

“Speech by the Hon. Minister of Local Government Public Works and National Housing, Dr. I.M.C. Chombo, at the Launching of the Maiden Meeting of the SADC Disaster Management Committee on 7th December 2000 at the Crowne Plaza Hotel”

“Disaster Management Coordination”

“SADC Health Sector – Disaster Management. Presented by Marcelino Lucas”

“SADC – Water Sector. Floods and Droughts Management Programme”

“The Status of Disaster Preparedness in Malawi”

“Disaster Management in Mauritius”

“Office of the Prime Minister: Briefing on Status of Disaster Preparedness in Namibia and Needs”

“Analytical Matrix of Disaster in SADC”

“Disaster Preparedness in Tanzania”

South Africa State of Disaster Preparedness

1. Aim

To provide a brief overview of the state of disaster preparedness in South Africa .

2. Discussion

Legislation

On 19 January 2000 South Africa launched the White Paper (policy document) on Disaster Management thereby adopting a new approach to disaster management.

In line with international trends and our national objectives of efficient and effective management of our nation's resources, priority is given in this new approach to prevention. Unlike previous policies that focused predominantly on relief and recovery efforts, this White Paper underscores the importance of preventing human, economic and property losses, and avoiding environmental degradation.

Preparedness measures for more efficient rescue operations will remain necessary. But much greater attention must be directed to the introduction of preventative strategies aimed at saving lives and protecting property before they are lost.

Previously scarce resources were diverted for disaster relief at the expense of growth and development opportunities, and a worsening of the plight of poverty-stricken communities was the result. The plight of the most vulnerable sections of our population was ignored and the very cause of their vulnerability -namely poverty -was obscured. In line with government's priorities, this White Paper pays specific attention to the pressing needs of poor communities in relation to both natural and human disasters.

The new approach is in keeping with the government's commitment to alleviate the plight of poor communities through its national efforts in poverty reduction, land reform, housing, employment creation and service expansion. It is also in line with international trends and particularly the United Nation's International Decade for Natural Disaster Reduction.

Another aspect that is emphasised in the White Paper is the need to pursue international regional cooperation with vigor. Only then South Africa will be able to reap the full benefit of disaster management. This can lead to joint standards of practice in the Southern African region to develop early warning systems to ensure a reduction of the impacts of possible of possible cross-border events. Government's new approach in relation to disaster management, in line with international trends, to meet the needs of the people in our country, resulted in the historic event

of the official launch of the White Paper- the first and only policy document on disaster management in the history of South Africa.

The Disaster Management Bill was published for public comment on 21 January 2000. The final draft of the Bill will be introduced into Parliament early in 2001.

3. Institutional Structures

To ensure the effective and efficient functioning/management of the function it is essential that structures are put in place in the various spheres of government.

The following structures are in place: (Annexure A)

National political level

To ensure a coordinated involvement on political level, Cabinet established an Inter-Ministerial Committee on Disaster Management {IMC} in 1997, comprising nine Cabinet Ministers and their deputies. The provincial MEC's have also been coopted on the IMC.

Official level

An Inter-departmental Disaster Management Committee (IDMC) was also established. The IDMC comprises representatives from national and provincial government departments, national associations/institutions, organised business. NGO's, etc. The head of the National Disaster Management Centre (NDMC) chairs the IDMC Working groups have also been established to attend to specific issues. (Annexure B).

National Disaster Management Centre (NDMC)

The Y2K phenomenon gave impetus to the establishment of the NDMC. The NDMC operated as a full-fledged National Operations Centre during the critical roll-over period from 31 December 1999 to 21 January 2000. As a result, the Y2K phenomenon was successfully managed and served as a test for coordination to also deal with future disasters that may occur in South Africa.

To be able to fulfill its basic task, namely the coordination of actions during all phases of disasters, the NDMC understands the extreme importance of the assimilation of information. The main focus of the NDMC is towards information management.

Information exchange is equally important on horizontal, as well as vertical level.

- Horizontal level assumes information flow between various stakeholders such as the SAPS, SANDF, ESKOM, TELKOM, Water Boards, SPOORNET, SADC countries, etc.

- Vertical level assumes information flow between National, Provincial, Regional and Local Disaster Management Institutions.

All of that would not be possible without the appropriate hardware and software. The NDMC is fully equipped to meet its needs. The basis for the NDMC operation is data base driven Web enabled technology. Any type of disaster related data can be submitted via Internet/Intranet, using just a browser. It will be submitted directly into an appropriate database, and be immediately available for all interested parties. Data retrieval is available on the web, e.g. monthly rainfall data (WR 90) can be obtained at the NDMC temporary web site. Browser technology is already used for the visualisation of the existing data I information (mapping, spatial queries). Presently, groundwater, temperature (maximum and minimum), solar radiation information (maps) can be seen at the existing web site. On-the-fly mathematical and statistical calculations are also available. At present, Standardized Precipitation Index (SPI) can be calculated using complex integrated web enabled methodology.

Provincial and local government level

Similar structures have been established on provincial and local government level.

4. Concept of Disaster Preparedness

As far as disaster preparedness is concerned, a bottom-up approach is followed.

As any event/disaster affects the community, the initial response is normally provided by the statutory emergency services of the local authority that is affected.

The basic principle is that the local authority is responsible for disaster management and it must therefore address the full spectrum of disaster management, i.e. pre-disaster risk reduction and the post-disaster recovery phase.

As far as disaster preparedness is concerned the local authority is responsible to address inter alia the following issues:

- Vulnerability assessments
- Contingency planning
- Institutional arrangements
- Early warning systems
- Response mechanisms

- Education and training.

If the local authority cannot cope using its own resources it can I must call on the provincial government for assistance.

Likewise the provincial government will call on the NDMC for assistance if it cannot cope with the situation.

At national level the NDMC will evaluate the situation and where necessary call on the support/assistance from national assets.

As far as the response phase of disaster management is concerned we rely heavily on the assistance from the SANDF and the SAPS as well as from national NGO's e.g. SA Red Cross, Salvation Army, SA Council of Churches, etc.

The devastating floods that occurred early in 2000 due to tropical cyclones Eline and Gloria demonstrated the level of preparedness of our country in rescue operations, not only in the Northern Province and the Mpumalanga Province, but also in assisting Mozambique.

5. Summary Of Needs

Although we managed to cope with the effects of tropical cyclones Eline and Gloria it also highlighted certain shortcomings/aspects to be addressed.

The following aspects must be addressed:

- Stockpiling of emergency equipment
- There is an urgent need to stockpile relief items such as emergency shelter, food, blankets, etc. that are critical during the first twenty-four (24) hours after a disaster has occurred.
- Training and capacity building
- There is a need for formal and informal training.
- Simulation exercises

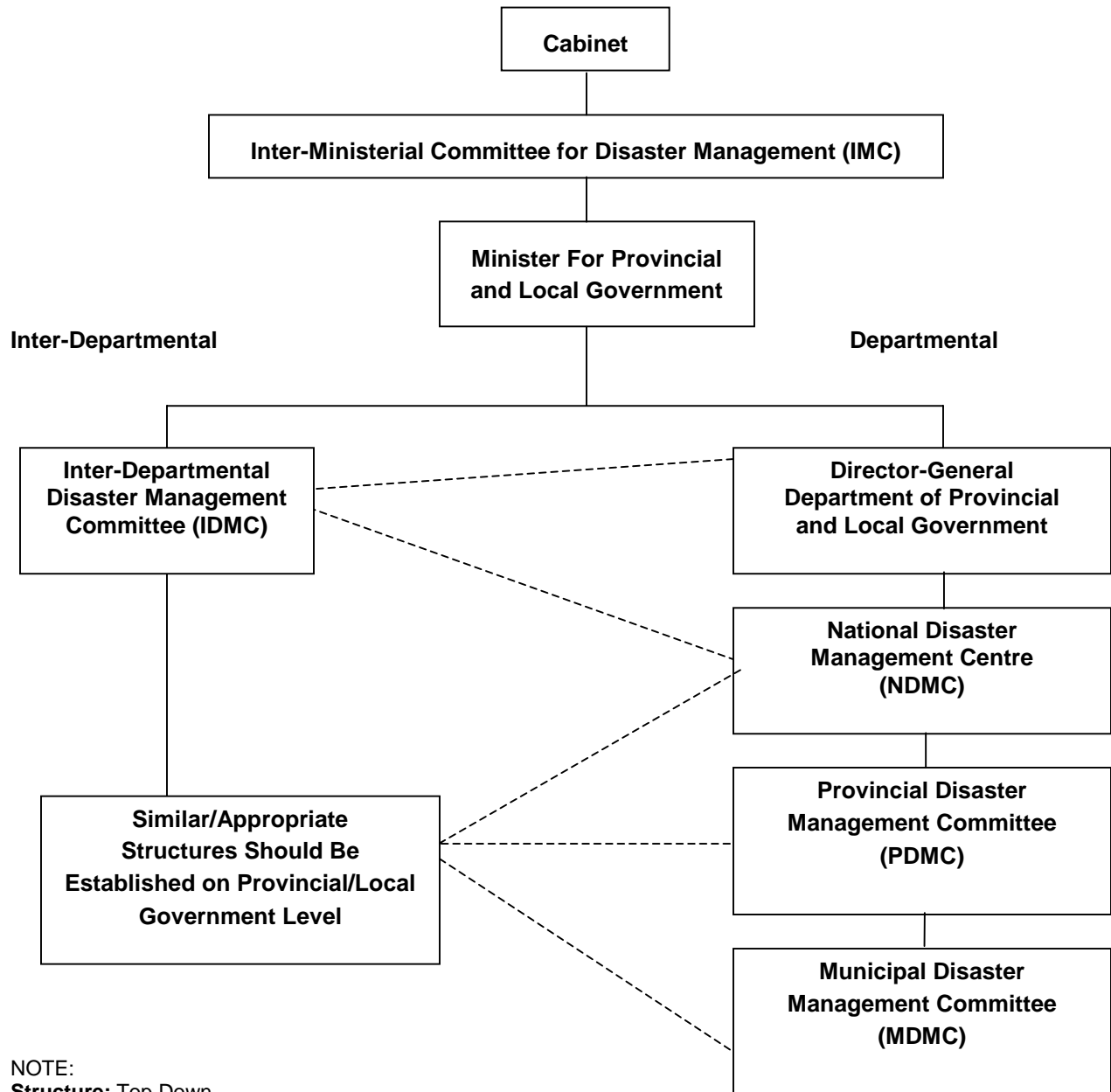
There is a need to develop simulation exercises to train disaster management officials and officials from other departments and organisations to work together in a Joint Operations Centre (JOC) in the event of a disaster.

- Vulnerability assessments
- There is a need to develop scientific methods to assist local authorities I provinces to embark on vulnerability assessments.
- Communication/Early Warning Systems
- Systems/Communication methods to warn communities, especially rural communities, must be developed.

6. Conclusion

The number and variety of incidents/disasters that occurred in South Africa during the past year (e.g., floods, veld fires, fires in informal settlements, train accidents, an explosion in residential area. etc.) demonstrated South Africa's "preparedness" to handle a situation. However there are shortcomings, which are being addressed.

Annexure A: National Structure for Disaster Management



NOTE:

Structure: Top Down

Process: Bottom-up approach (community participation)

Annexure B: Inter-Departmental Disaster Management (IDMC): Working Groups

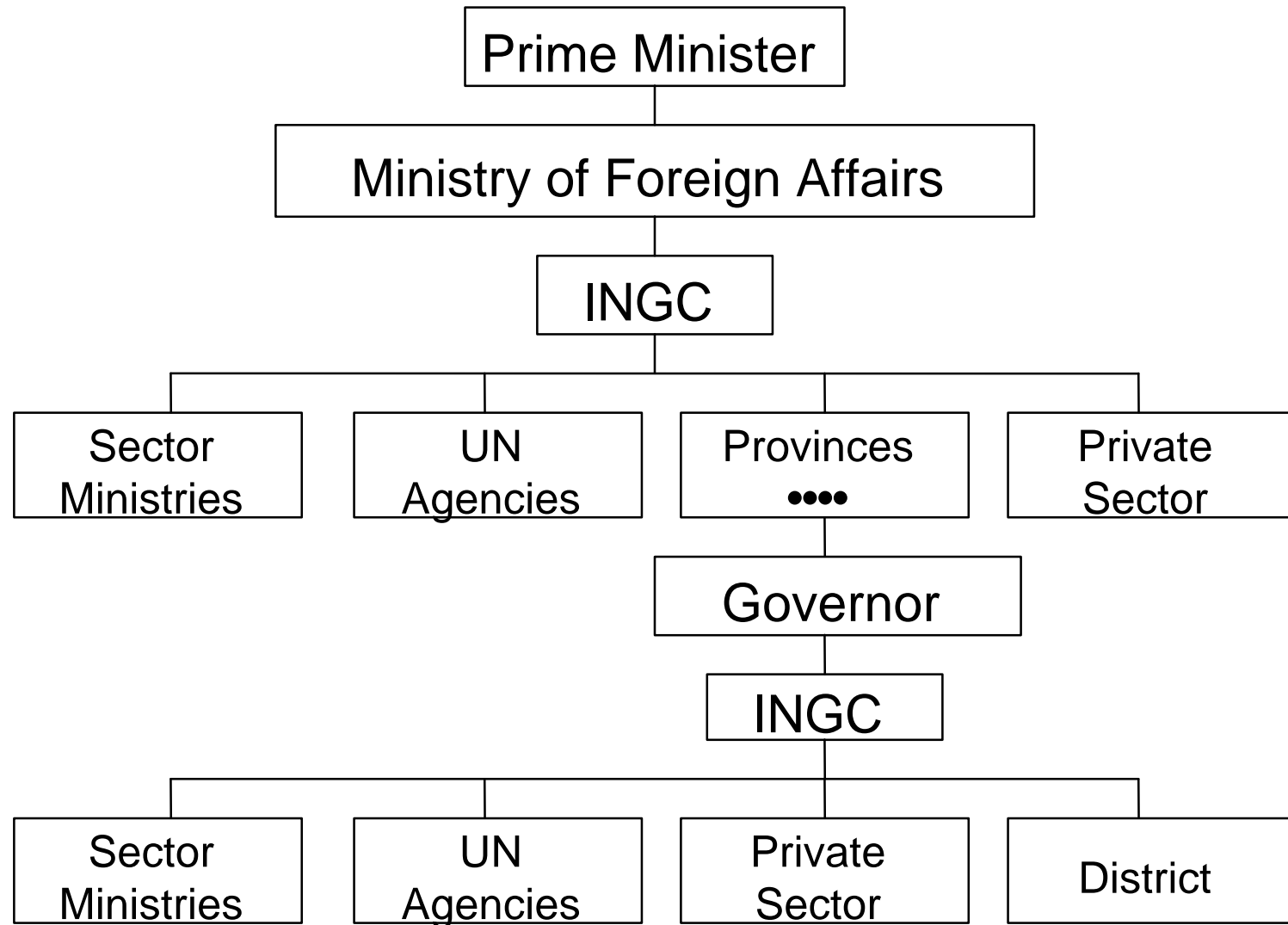
The following IDMC Working Groups have also been established:

Floods	Department of Water Affairs and Forestry
Drought	Department of Agriculture
Veld and Forest Fires	Department of Water Affairs and Forestry
Environmental Emergencies	Department of Environmental Affairs
Epidemics	Department of Health
Weather Warnings	DEAT (SA Weather Bureau)
Urgent Response	Department of Provincial and Local Government
Disaster Relief	Department of Welfare
Displaced Persons	Department of Home Affairs
Mine Disasters	Department of Minerals and Energy
International Aspects	Department of Foreign Affairs
Policy and Legislation	Department of Provincial and Local Government
Training and Capacity Building	Department of Provincial and Local Government
Communications	SANDF

The relevant Departments must take responsibility for the Working Groups allocated to them in accordance with their roles and responsibilities re: disaster management. The various Working Groups focus on aspects such as mitigation and preventative measures, immediate response and relief measures, cross border cooperation and response measures.

Disaster Management in Mozambique

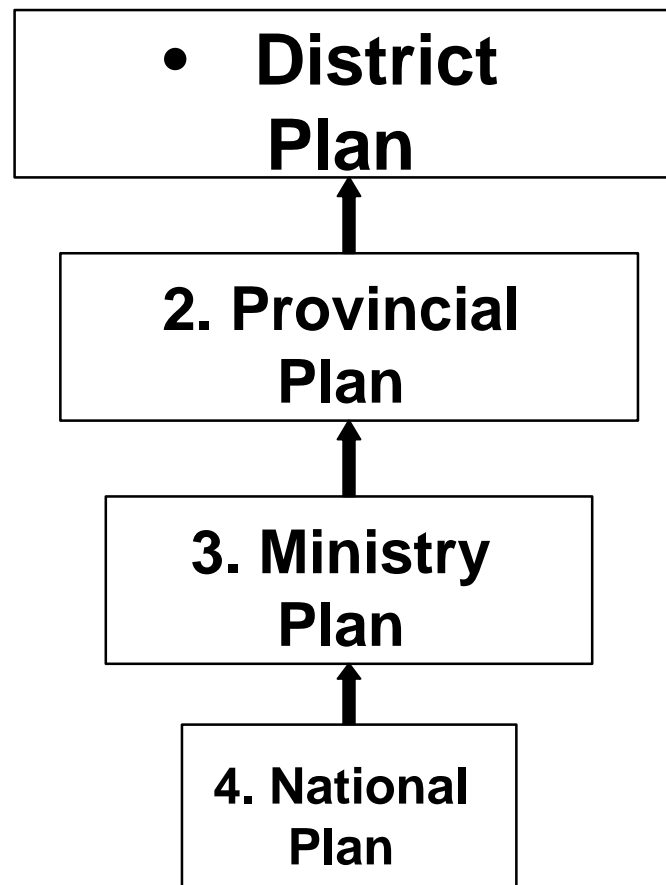
Disaster Management Coordination



Task Force Subcommittees	Role	Leads	Participation
1. Warning & Alert	Warning System Monitoring	Meteo/P. Works	Meteo, P. Works, L. Gov. Media Police, Action Aid
2. Organiz. & Awareness	Mobilization of Volunteers Community Awareness	MRC/ENVIRON	Welfare, Education Media, MRCD L. Government
3. Training & Response	Training, Refuge Search & Rescue	Defense/Maritime	Firebrigade Parachutes, MRC, Defense
4. Transport & Communic.	Aircrafts, Boats, Radios, Airfields, Fuel....	MTC/Airclub	Emergency, Roads, Airports, Maritime
5. Food & Agriculture	Stocks Propositioning Agrapacks	INGC/WFP	Agric, Customs, FAO, Private Sector, WFP, INGC
6. Water, & Shelter, & San.	Evacuation, Accommodation	Housing/Health	Water, Welfare, Environment L. Government
• Coordination, Info & Media	Command Centre (InGC) Press Release Focal Point	INGC/UNDP	Sectors/UN/Donors INGC







Source: INGC – Nov/2000 Mozambique

Contingency Plan – Flowchart for the Rain Fall Season 2000/2001



INGC – Nov/2000
Mozambique

Cronogram: Contingency Plan 2000/2001

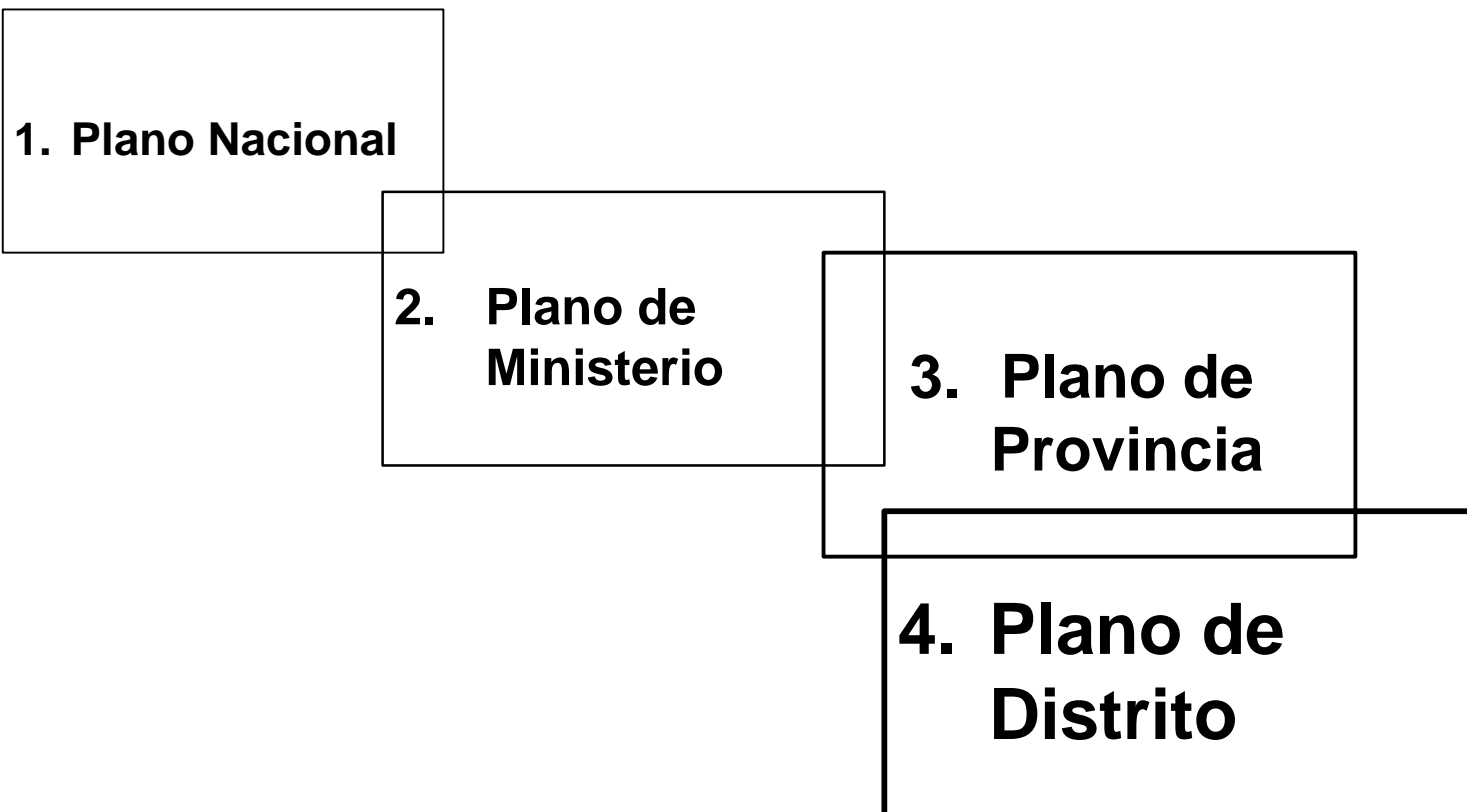
	October		November			December		Entity
Days	15	25	1	20	30	1	15	
1. Definition of Priorities								CTE
2. Disclosure of Plan Guideline								CTE
3. Launch the Formal Process								CCGC
• Multi-Sectoral Teams Visit Provinces								CTE
5. Finalization of Provincial/ Sectorial Plans								CTE
6. Final Presentation of the Contingency Plan								MNEC

Source: INGC – Out. 2000

Plano de Contingência é Poca Chuvosa 2000/2001



Plano de Contingência é Poca Chuvosa 2000/2001



Disaster Management In Mauritius

1. Background

Mauritius is a volcanic island of 1,865 km formed by lava flows some eight or nine million years ago with small dependencies like Agalega, Rodrigues and St Brandon which spread in an exclusive economic zone of about 1.6 million sq km in the Indian Ocean with a total multiracial population of about 1,200,000.

The main land with its capital Port Louis is located 20 degrees South of the Equator and 57 degrees East of Greenwich. It is about 800 km East of Madagascar while the other nearest Eastern land is Australia.

The island is characterized by a coastal plain rising gradually towards a central plateau. Mountain ranges border this plateau and the highest peak reaches 826 metres/2,711 ft above sea level. In the South Western region the sea is some four thousand metres deep. Its climate is of the humid tropical type, but because of the sea which surrounds it and the persistence of the South East trade winds, it is also of the maritime type.

The Republic of Mauritius has a mixed economy with an important dose of tourism. The backbone of the economy is sugar with some Agricultural diversification. Although textile dominates the industrial sector, high tech trades-lines are very much part of the Mauritian free zone complexes. There are also a number of Agro industries responding both to local and regional export requirements.

Being an island State, the following are the Natural Disasters which can hit the country:

- a. Cyclones
- b. Torrential rain and floods
- c. Landslides
- d. Drought

However, in the recent years, the country was visited mostly by cyclones which are the main threats to the economy.

The following terminology has been adopted in the South West Indian Ocean Region for classifying cyclonic disturbances and will be used in Cyclone bulletins:

(View Foil) VF 1

	Terminology	Speed of Gusts (kilometer per hour)
i.	Tropical Depression	Under 89
ii.	Moderate Tropical Storm	89 to 124
iii.	Severe Tropical Storm	125 to 165
iv.	Tropical Cyclone	166 to 233
v.	Intense Tropical Cyclone	234 to 299
vi.	Very Intense Tropical Cyclone	Above 300

Bulletins numbering from a few to a dozen or more for each cyclone, are issued at about 6-hourly intervals or more often. Each bulletin is labelled first, second, third, etc, and dated and timed.

A bulletin gives the position, intensity and movement of the cyclone with a forecast of the expected changes in the conditions of the wind and the sea, and the expected time of commencement of specified windspeed and gust conditions. Advice about precautions is given in general terms but all recipients must necessarily apply the facts of the forecast to his own situation because, for instance, a householder may be able to close his shutters in a few minutes during the night whereas the proper protection of fishing boats require a considerable period of daylight hours.

Precaution costs money and effort and must be regarded as an insurance against the risk of loss and not as prevention of a certainty. It has been decided that the Class System of Warnings should be based primarily on the extent of the risk and secondly on the time factor. The coded Class System by itself can, in no way, indicate the intensity or size of the cyclone nor the extent to which gusts will exceed 120 kilometer per hour

2. The Cyclone Warning System

The warning system takes into consideration the degree of risk and the time factor. It is not yet possible to forecast the direction and speed of movement of a cyclone with certainty. The average speed in the vicinity of Mauritius is about 16 kilometer per hour. However, speeds up to 32 km p.h have been encountered and a cyclone has been known to become stationary over Mauritius for 20 hours. Distance and probability of recurvature are the two most important factors considered in relation to the issue of warnings.

(View Foil) VF 2

Class I

To be issued 36 to 48 hours before Mauritius or Rodrigues or Agalega is likely to be affected.

“Cyclone XXX may move into the vicinity of Mauritius/Rodrigues/Agalega and there is a risk that gusts exceeding 120 kilometer per hour will occur. A cyclone Warning Class I is in force in Mauritius/Rodrigues/Agalega. Preliminary precautions are advised followed by (i) bulletin and (ii) list of precautions.”

Class II

To be issued so as to allow, as far as practicable, 12 hours of daylight before gusts of 120 kilometer per hour will occur at Mauritius/Rodrigues/Agalega.

“The risk of cyclone XXX causing gusts exceeding 120 kilometer per hour at Mauritius/Rodrigues/Agalega has increased. A cyclone warning class II is in force in Mauritius/Rodrigues Agalega. The public is advised to take precautions, followed by (i) bulletins and (ii) list of precautions.”

Class III

To be issued, as far as practicable in time to allow 6 hours of daylight before the advent of 120 kilometer per hour gusts.

“It is now highly probable that cyclone xxx will cause gusts exceeding 120 kilometer per hour at Mauritius/Rodrigues/Agalega. The public is urged to complete all precautions, followed by (i) bulletin and (ii) list of precautions.”

Class IV

Gusts over 120 kilometer per hour have occurred and are expected to continue.

3. Termination

There is no longer appreciable danger of gusts exceeding 120 kilometer per hour.

4. Action before cyclonic season

The official cyclone season in Mauritius covers the period between the 1st of November and the 15th of May.

- a. Each year in the first fortnight of October the Central Cyclone Committee, composed of representatives of various Ministries/Departments/Essential Services, is convened by the Secretary of Home Affairs, Prime Minister’s Office, for reviewing and, if necessary, to amend the Cyclone Emergency and other Natural Disasters Scheme.

- b. Local Cyclone Committees at the level of Local Government Authorities meet to coordinate actions by relevant Services and Departments to ensure a smooth and quick recovery of services and supplies essential to the population.
- c. The public is sensitized by way of:
 - i. posters
 - ii. talk on radio/TV
 - iii. talk in schools, Village Halls, etc.

5. Actions in the event of a cyclone

(View Foil) 3

In the event of a cyclone, the following actions are taken to sensitize the public of the imminent danger:

- a. Flags as hereunder are flown at Town Halls, Village Halls, Police Stations and Fisheries Posts as well as any other suitable buildings according to the following code:

i.	One red flag	Warning Class I
ii.	Two red flags	Warning Class II
iii.	Three red flags	Warning Class III
iv.	Three red flags	Warning Class IV
v.	One blue flag	Termination
- b. On the issue of a cyclone warning Class II, all personnel of the Police Force including its para-military organisation report for duty and standby, ready for any intervention.

(View Foil) 4

- c. On the issue of a cyclone Class II or a Class IV warning, as appropriate, Government offices are closed except for the essential services listed below:
 - i. Police
 - ii. Fire Services

- iii. Medical Services
- iv. Social Security Headquarters and such regional offices which in the opinion of the Ministry of Social Security should remain open.
- v. Meteorological Services.
- vi. Telecom and Electricity Services.
- vii. Civil Aviation, Ports Authority and Customs.
- viii. Broadcasting Services.

6. Action after a cyclone

Immediately after a cyclone, all steps are taken for

- a. Clearing of the main arteries of the island to ensure proper and easy access to areas needing help.
- b. Restoration of public transport.
- c. Restoration of water supply, electricity and essential telephones.
- d. Reopening of the airport and harbour .
- e. Assessment of damage to food stocks.
- f. Provision and maintenance of sanitary arrangements at Refugee Centres.

(View Foil) 5

Emergency relief operations is conducted by the Government through a standing Cabinet Cyclone Committee chaired by the Prime Minister composing of main Cabinet Ministers. They are supported by a Committee of Officials under the chairmanship of the Secretary for Home Affairs which is responsible for the following:

- a. To collect and present to the Cabinet Cyclone Committee information on:
 - i. the general situation throughout the island (obtained mainly from the Police).

- ii. the condition of Government Departments (obtained from Permanent Secretaries and other Head of Ministries/Departments/Organisations); and,
- iii. damage to non-government property (obtained mainly from Local Cyclone Committees);
- iv. To make recommendations on any relief measures immediately required;
- v. To ensure that immediate executive action is taken on the decisions of the Cabinet Committee.

7. Torrential Rain

As soon as it appears that the climatic conditions prevailing in the vicinity of Mauritius has produced **100 mm** of widespread rain in less than 12 hours and that it is likely to continue for several hours, the Meteorological Services will issue warnings at regular intervals through the radio, television and the Police to keep the public informed of the situation.

With a view to safeguard lives of our children who are more vulnerable during floods, if such a condition is likely to continue at the beginning of a school day, schools will not be opened. However, if this condition is observed during school hours, classes will stop and school children allowed to go home. Schools will not be closed until all children have left the premises. Such messages will be conveyed to the public through the radio and the television services.

Local authorities will check all

- a. flood prone areas
- b. accident prone bridges and culverts, and
- c. areas in a prolonged state of inundation and see how these could be drained.

The Water Authority will carry out flood studies and establish flood marks for different depth of rainfall for major rivers and determine the time lag between start of torrential rains and start of flood event for flood prone areas and major rivers. It will pass on the relevant information to the Police, Meteorological Services and the Broadcasting Services for advance warning to the public.

8. Landslide

Though landslide prone areas are regularly monitored during heavy rainfalls, such areas are identified mapped and the inhabitants are kept informed of the situation. Arrangements have

been made for their evacuation by the Police/Para Military Organisation to previously earmarked Refugee Centres.

9. Conclusion

The level of education, health and social services are fairly high as they evolve within the framework of a welfare state. They are further enhanced by a dynamic private sector and NGO activities under the vigilant eyes of many United Nations specialist agencies like the UNDP, WHO and UNICEF. Thus there is a congenial climate for strengthening the framework for disaster preparedness and programmes to meet the challenges of cyclones, floods and landslides.

It can be safely stated that by and large the Mauritian Authorities and the Population are conscious to the need for disaster preparedness/management.

The Status Of Disaster Preparedness In Malawi

1. Introduction

Disaster Management issues in Malawi are the responsibility of the Department of Disaster Preparedness, Relief and Rehabilitation in the Office of the President and Cabinet. The mandate of the Department of Disaster Preparedness, Relief and Rehabilitation is thus to direct and coordinate, at national level, disaster management activities in the country covering the whole spectrum/cycle of disaster, i.e. prevention, mitigation, preparedness, emergency response, recovery and rehabilitation. Common disasters in the country include: flooding, flash floods, drought, epidemics, refugees, etc.

2. Institutional Framework

The institutional framework for disaster management in Malawi was created by Act of Parliament No.27, the Disaster Preparedness and Relief Act of December, 1991. The Act comprises a detailed structure covering all aspects of disaster management. The Act, for example, provides, under section 3, for the appointment of the Commissioner for Disaster Preparedness, Relief and Rehabilitation as head of the department (in the Office of the President and Cabinet). The Act also provides for the establishment of a National Disaster Preparedness and Relief Committee (NDPRC). The committee comprises all government Ministries/Departments and representatives of some Non Governmental Organisations (NGOs). It is supposed to provide policy directions in disaster management to the Commissioner for Disaster Preparedness, Relief and Rehabilitation.

At district level, the District Development Committee serves as the District Civil Protection Committee (the equivalent of the NDPRC). Chief Executives of District Assemblies are responsible for implementation of disaster management programmes at district level. They are assisted by NGOs operating in the districts.

3. Activities That Have Been Undertaken

National Disaster Management Plan

With assistance from the United Nations Department of Humanitarian Affairs (now UN Office for Coordination of Humanitarian Affairs -OCHA), the Government of Malawi embarked on the formulation of a National Disaster Management Plan for the country in 1996. A draft plan is ready. The draft plan identifies all major hazards with disaster potential from noxious weeds such as the water hyacinth to social upheavals and spells out procedures for response to emergencies. It also details preparedness capacity to cope with a variety of natural and man-made disasters. The consultative process which led to the draft plan involved holding of

workshops at regional and district level. The process is now on hold due to lack of funds. There is need to hold two more workshops -one for Principal Secretaries and Heads of Departments and another one for Cabinet Ministers; before the plan can be finalised.

The Department of Disaster Preparedness, Relief and Rehabilitation also intends to develop a Disaster Management Manual to compliment the National Disaster Management plan. The manual will apportion responsibilities to all players/stakeholders and spell out procedures to be followed when a disaster strikes.

Disaster Mitigation Activities

While the Government of Malawi continues to look at emergency response as a necessary component of disaster management, it is now shifting emphasis from emergency response to disaster mitigation, entailing disaster prevention and reduction. This concept links wise management of natural resources with local economic and social resilience; viewing hazard mitigation as an integral part of sustainable development. This change has come about due to the realisation that disasters can erase years, if not decades, of development efforts. Mitigation activities, on the other hand, can either prevent the occurrence of disasters or reduce their impact where total prevention would remain an impossible mission.

To this effect the Government of Malawi, in collaboration with the World Food Programme, has developed a Disaster Mitigation and Response project which will start being implemented soon. The overall objective of the project is to ensure sustainable improvements in disaster mitigation, management and response at community, district and national levels.

4. Needs

Communication

- When a disaster strikes, there are usually delays by Chief Executives of District Assemblies to report to the Department of Disaster Preparedness, Relief and Rehabilitation due to communication problems. There is, therefore, need for radio communication facilities to link the department and the districts.
- There is also need for some of the vehicles of the department to be fitted with radio communication equipment.
- The Department also needs two satellite phones to facilitate communication during emergency operations. We feel that this need ought to apply to other Disaster Management Offices in the region.

Briefing on the Status of Disaster Preparedness in Namibia and Needs

1. Introduction

Following your request for all the SADC member states to provide briefing on the status of preparedness and their needs, Namibia forwards the following information: The national disaster preparedness in Namibia is at its emerging stage and a lot more still has to be done.

2. A Brief Status of Disaster Preparedness in Namibia

- Namibia is implementing long and short-term strategies on activities related to lessening the effect of drought as stipulated in the National Drought Policy. Some of these strategies include pest management, drought management and flood management to mention just a few. Cabinet has approved the National Drought Fund to facilitate the implementation.
- Plans are underway to construct a Search and Rescue Center in the year 2001. This will reduce the dependence of Namibia on the South Africa Search and Rescue Organisation (SASAR) during aviation operation.
- A Disaster Surveillance and Epidemic Management Section is established and fully functioning in the Ministry of Health and Social Services. The Ministry is also implementing public awareness campaigns epidemics that could result in disaster e.g., HIV/AIDS.
- The Ministry of Environment and Tourism is implementing environmental disaster mitigation activities. Some enabling policies have been approved by Cabinet and are being implemented, e.g., the Waste Management Policy.
- Plans for the creation of the National Disaster fund are underway. This will facilitate the implementation of structural and non-structural mitigation activities in disaster management.
- Poverty alleviation programmes are being implemented by encouraging vulnerable communities to participate in developmental and income generating activities.
- A National Oil Spill Contingency plan is being implemented by the Directorate of Maritime Affairs in the Ministry of Works, Transport and Communication.

- Twenty-three Regional Trainers have been trained on disaster preparedness and management. Focal Point Persons have been trained on the structure and the functions of the National Emergency Management System as well as their role before, during and after an emergency or disaster. Training has also been offered to Volunteers for the Vulnerable Group Feeding Programme.

3. Country needs for disaster preparedness

In consultation with the line ministries, the following needs to enable Namibia attain a high level of disaster preparedness have been identified.

- Financial need
- Training of personnel in disaster preparedness and management
- Equipment
 - ♦ Fire equipment
 - ♦ Helicopters
 - ♦ Boats
 - ♦ Water tankers
 - ♦ Computer hardware and software for search and rescue of crashed planes and pilot forced landing sites
 - ♦ 4 x 4 trucks
- Medical equipment
 - ♦ Ambulance
 - ♦ Stretchers
 - ♦ Emergency drugs

4. Comments On The “Decisions Of The SADC Council Of Ministers On Disaster Management” Report.

1. The United Nations together with other International organizations should assist in the attainment of a high level of preparedness in individual SADC countries in order for these countries to contribute effectively towards the regional course.
2. Various SADC countries send their personnel to different countries and institutions for training in Disaster Management. These institutions differ in approach and sometimes definition of terms and concepts. It will therefore be to the SADC advantage if a common ground could be found as far as training is concerned.
3. In order for the SADC Disaster Management Mechanism to be successful, more material and financial resources should be mobilized so that the region invests in its human resources development.

5. Correction On The Mission’s Finding In Namibian

Page 51 point 3 under background should read as follows:

- To identify and mobilize resources (human, material, financial) at the national, regional and international levels;
- Bullet 3 on the same page under Disaster Risks. the second sentence should read;
- The latter are prevalent amongst people living in shacks and temporary shelters.

Page 52, the second paragraph under “Disaster Management System” should read:

- According to the national disaster plan, the Cabinet chaired by the Head of State is responsible for all policy decisions and instructions related to the management of a national disaster, including the mobilization of resources. The 2nd sentence of that paragraph should be deleted.

Page 53, 2nd paragraph, first sentences write “lead” between Government and Ministries.

Paragraph 4, first sentence should read as follows:

- The Regional Emergency Management Units comprise of all heads of lead Government departments.

Paragraph 6, 2nd sentence should read:

- Such a system comprises of Civil Aviation, Government of Namibia Action Control Group (GACG), Civil Defence in the Ministry of Regional, Local Government and Housing and Non-Governmental Organizations.

The following sentence is for your own information and clarity on this same paragraph:

- *The Civil Defence is part of the City of Windhoek Municipal Authority and all Municipal Authorities in the country fall under the Ministry of Regional, Local Government and Housing.*

Paragraph 7, the first sentence should read as follows:

- The Civil Aviation Directorate is a search and rescue division of the Ministry of Works, Transport and Communication which deals with aviation accidents. The Maritime Affairs Directorate of the same Ministry deals with maritime accidents.

Page 54, paragraph 2, replace the two words “ territory” with “in the City of Windhoek.” Under point ii) of the same paragraph replace the word “sate” with “state”

Page 56, paragraph two under Collaboration, replace the first and second sentence with “There has been joint international appeals for some SADC countries.”

Page 57, sentence 1 paragraph 1 under Weakness should read as follows:

- The Emergency Management Unit is staffed as per the approved structure.

Sentence two of paragraph 1 under Weakness should read as follows:

- As a Unit under the Office of the Prime Minister, the EMU has no capacity to implement programmes, because it was created to coordinate programmes. The implementation of programmes are the responsibility of line Ministries. Even though the Unit has a budget of its own, there is no allocation for emergency expenses on the Unit’s budget.

Paragraph 2 delete the whole of sentence 2 starting with “The EMU believes...” as well as the last one starting with “In addition....”

Disaster Management in Botswana

Presentation by Ms. Dineo Mogwe

Director National Disaster Management Office

Chairperson

Distinguished Delegates

Ladies and Gentlemen:

It is a great honour and privilege for me to have been afforded this opportunity to make a brief deliberation on behalf of my country Botswana on the subject of disaster management. I am particularly delighted because in my role as the Director of the National Disaster Management Office (NDMO), I expect to forge with other participants durable networking relationships that will enable my country to tap experience elsewhere in establishing disaster management projects and programmes.

1. Background

By way of background, permit me sir/madam to briefly outline my country's geography and environmental nature which gives rise to the kind of disasters we have. Botswana is a landlocked country at the heart of Southern Africa. The mean altitude is about 1000 metres above sea level, and rainfall ranges from 650mm in the extreme North-east to less than 250mm in the extreme south-west. Thus the country is largely arid or semi-arid. Most rain occurs between the months of October and May.

Much of the country is flat, shares borders with Namibia, South Africa, Zambia and Zimbabwe. Its size is 582 000 KM² -approximately the size of Kenya in Africa, France in Europe and the State of Texas in the USA. But unlike the countries mentioned, Botswana is sparsely populated with a population of 1.3 million that is concentrated along the eastern flank. The population density is approximately 2 persons per square kilometer.

2. Institutional Framework

The Botswana Government disaster management structure is at three levels.

National Committee on Disaster Preparedness. Chaired by the Deputy Permanent Secretary. The representatives are Deputy Permanent Secretaries in the ministries of Botswana Defence Force, Botswana Police Service and the Botswana Red Cross.

3. Disaster Profile

The Republic of Botswana is prone to a range of disasters. The disasters that occur with varying degrees of regularity and intensity include drought, floods, veld fires, epidemics, animal diseases, vectors such as malaria carrying mosquitoes and tsetse fly, pest infestations (locusts invasions, quela birds and worms, the army worm and African ball worm), cyclones, strong winds and earthquakes. Manmade disasters include transport accidents (motor, train and airplane) refugee influx; industrial accidents and chemical spillage are also present in the country.

4. Drought

Drought is the most known disaster in Botswana. However, the government has developed a well-coordinated structure and an integrated set of activities to respond to the impact of drought.

5. HIV/AIDS

Botswana is reported to have the highest rate of HIV/AIDS infection in the world, and the management of the pandemic is government's top priority .The HIV / AIDS Unit and the newly established National Aids Co-ordinating Agency have the mandate of dealing with the crisis.

6. 1999 – 2000 Flood Situation

The unusually heavy rains experienced since December 1999 was aggravated by the sub-cyclones that originated from the Mozambique channels reaching Botswana by 7th February 2000. This resulted in torrential rains causing the heaviest floods ever recorded in the history of Botswana. 23 administrative districts/cities/towns were affected.

All rivers, dams were flooded and overflowing. The capital city Gaborone was cut off from the rest of the country , as the rains continued for weeks without a break, all main roads linking to other major centres and neighbouring countries were impassable following the submergence of all the main bridges. The main rail line linking the north and south was washed away in four places bringing the entire rail traffic to a halt. Botswana suffered economic and social losses from the 1999–2000 floods. Our losses amounted to US \$214,000,000.

The 1999–2000 floods covered 90% of the country causing extensive damage to infrastructure and property .As a result thousands of people were left homeless as houses were submerged, traditional huts collapsed, crops and small stock were washed away. In several areas pit latrines were submerged raising the potential for significant health and sanitation problems.

After noting the extent and severity of the damage and continuing rainfall, the NDMO under Office of the President, together with the District Disaster Management Committees carried out their mandate of coordinating emergency relief measures and rehabilitation operations.

Against this background, the central and local government officials and other emergency services such as the Botswana Red Cross Society, Medical Rescue International -Botswana, Botswana Police Service, NGO's and the Botswana Defence Force, provided relief assistance.

As this was a disaster of unprecedented magnitude, the rescue and evacuation exercises exposed weaknesses in the country's coping capacity.

7. Civil – Military Relationship

Is inherent in Government policy and proved to be very efficient during the flood disaster

8. Lessons Learned

Chairperson allow me to mention a few:

1. Inadequate level of preparedness
2. Inadequate search and rescue
3. Poor information management system -collating statistics from the districts etc. was very difficult
4. The frustrations of bureaucratic red tape

9. Way Forward

1. Disaster profile and the National Disaster Management Plan (the first draft is out), which will be followed by the National Stakeholders Workshop in February 2001.
2. The National Disaster Management Plan is forming the basis for the development of the Disaster Management Legal framework.
3. The need for capacity building both at national and local levels
4. The need to train, train and further training
5. Involvement of the community and other relevant stakeholders
6. Develop an appropriate structure for the unit

7. Develop a strategic plan and budget
8. Decentralization of basic items such as tents

Report Of The SADC Working Group On Disaster Management

1. Introduction And Background

- 1.1 Emanating from discussions at a high-level Southern African Regional Disaster Assistance Seminar held in Gaborone, Botswana on 10–12 November 1998, it was decided that a Working Group, comprising disaster management officials from SADC Member States, be established to create a Disaster Management Unit within the SADC Secretariat to coordinate overall disaster management.
- 1.2 After a slow start, the Working Group comprising representatives of six SADC member States, held two meetings, i.e. on 11 November 1999 and the other on 30 May 2000.
- 1.3 The following decisions were taken at the meeting on 11 November 1999:
 - a. That the Department of Constitutional Development in South Africa will act as the Secretariat of the Working Group.
 - b. That the Secretariat will address a letter to the SADC Secretariat stating:
 - i. that the first step towards establishing a Disaster Management Unit is to obtain the necessary funds.
 - ii. that the SADC Secretariat approach USECOM for donor funding to finance the appointment of a specialised person as head of the Disaster Management Unit.
 - iii. that the head of the Disaster Management Unit will be appointed on a two year contract basis.
 - iv. that at least \$200 000 will be required to defray costs such as remuneration, housing and travel expenses of the person to be appointed.
 - v. that the SADC Secretariat request USECOM to reply within a certain time period so that other avenues for donor funds can be sought.
 - vi. that the Disaster Management Unit will be stationed in Botswana.

- vii. that the SADC Secretariat confirm that they will supply administration support such as office space I telephone I stationery, etc.
- viii. that the SADC Secretariat must report progress to the Council of Ministers.
- ix. that the SADC Secretariat include this matter as an item for discussion on the agenda for the next meeting of the Council of Ministers.
- x. that the SADC Secretariat be requested to report back to the Working Group.

1.4 The chairperson of the Working Group, Mr LJ Buys. Chief Director: Disaster Management, Department of Provincial and Local Government in South Africa immediately forwarded the following proposals made by the Working Group to the SADC Secretariat, but failed to obtain a response:

- c. That one highly skilled person plus a personal assistant, be appointed according to the profile that was established by the Working Group; and
- d. That the following terms of reference were identified by the Working Group.
 - i. an assessment of the available resources within the SADC context; and
 - ii. once the available resources have been established the Working Group would consider the method of pulling the resources together.

15. The floods that devastated large areas of Mozambique. Botswana, Zimbabwe and South Africa during February/March 2000 gave impetus to the discussions at the Working Group meeting held on 30 May 2000. Members reviewed the status of disasters in their Region and the Working Group noted the following:

(a) Tanzania

Whilst some regions were experiencing devastating floods, Tanzania and Kenya were experiencing severe drought and may end up with a critical food shortage.

Tanzania's final assessment of the position in the region will only be available in June 2000. The following system is utilised in dealing with extreme drought periods:

- After the final assessment, a joint assessment is done in coordination the WFP, FAG, Ministry of Agriculture and the NGO's. This final assessment will establish the shortage of food in the region.
- Proposals are then made to fill the gaps that have been identified.
- Imports of maize, which is the commodity that is in demand, is dealt with by means of a tender process.
- A booklet reflecting the position in the region is distributed to donors and other interested parties.

It was suggested that Tanzania should share the findings of their final assessment with the Working Group since the aim is to coordinate within the SADC context.

(b) Zambia

Zambia experienced its share of the recent devastating floods. Sixteen districts were flooded, mostly in the Zambesi catchment area and in the Eastern part of Zambia. As a result of the heavy rain during the previous season, the Kariba Dam was already at its maximum level when the February 2000 floods occurred. It therefore became essential to release water from the Kariba Dam to avoid an even worse disaster if the dam wall failed. The result was that $\pm 390\text{km}$ of land was flooded and the water stayed for two weeks. Crops were swept away, animals were under threat. The aftermath of the floods was epidemics, food insecurity and several other parameters that need attention.

Zambia is facing a food shortage in 16 districts, not including chronic disaster prone areas. Zambia is working in close liaison with the FAG and WFP to do a comprehensive assessment of the position. It is hoped that a clearer picture of the position will be available during June 2000.

Zambia extended their heartfelt congratulations to South Africa for its quick response in assisting its neighbour, Mozambique, during the flood disasters. What made this response even more noteworthy was the fact that South Africa was contending with its own flood problems. The South African National Defence Force not only worked extremely long hours but also took heroic risks to save the lives of the flood victims. This whole exercise was viewed as an excellent example of SADC cooperation.

(c) Botswana

Botswana is a drought area. This is considered a normal way of life in this country. Before the Disaster Management office was set up in Botswana, there existed a mechanism, i.e. a development programme, in the Ministry of Finance. This programme is an ongoing thing.

The recent torrential rains however, destroyed all potential crops leaving Botswana with a food shortage this year. The Disaster Management Centre is presently working with the Ministry of Finance to assess the position. The final indication is that Botswana will have a severe food shortage.

Statistics indicate that Botswana suffered damage to approximately 17,000 dwellings as a result of the rain. Immediate relief to disaster victims consisted of the provision of food, blankets and tents. It was extremely difficult to erect tents in the muddy ground and people eventually had to be evacuated to schools, which disrupted ongoing school programmes.

The lessons learned indicate that a lot of work has to be done by looking at strengths and weaknesses e.g. establishing evacuation centres, etc.

UNDP consultants will be joining the Botswana Disaster Management Centre during the forthcoming week to assist with the development of a disaster management plan and legislation. One consultant will undertake a vulnerability assessment and the second will be conducting a post-disaster assessment to look into the strengths and weaknesses.

(d) Zimbabwe

Ms Lindy Chenga (Zimbabwe High Commission), who was standing in for Ms Ndlovu from Zimbabwe was not in a position to report on the disaster management situation in Zimbabwe.

(e) South Africa

Although Mozambique was the hardest hit during the recent flood disasters, South Africa experienced the spill-over from the two tropical Cyclones (i.e., Gloria and Eline). These cyclones eventually turned into tropical depressions that moved right across the continent from the channel over Mozambique, South Africa, Zambia and Botswana and eventually dissipated in the north of Namibia.

The Northern Province and the Mpumalanga Province were the most severely affected as well as the north eastern part of KwaZulu-Natal adjacent to Mozambique.

The affected provinces suffered a great deal of damage. Approximately 40,000 dwellings were destroyed as well as massive damage to infrastructure such as roads, bridges, schools and clinics.

Mr Buys, who is also the Programme Manager for the reconstruction phase informed that the estimates of damages thus far is in the region of R2.8bn. It is virtually impossible to deal with damage of this magnitude in one financial year. South Africa is dealing with the reconstruction process on a priority basis over a couple of financial years. A disaster such as this impacts excessively on a developing country such as South Africa and pushes back the development programme for at least three years.

South Africa's biggest tourist attraction, namely the Kruger National Park was extremely hard hit by the recent flood disaster and immediate emergency reparations had to be implemented.

The outbreak of malaria as a result of the vast area covered in stagnant water in the affected regions is a grave concern. South Africa has decided to use DDT despite all the "downsides" that this chemical poses. It is considered that the eminent outbreak of a malaria epidemic are far worse than the possible effects of DDT.

1. Mr Robert Mister, a Senior Advisor from the UNDP was invited to address the Working Group during the meeting held on 30 May 2000. Mr. Mister informed the meeting that during a Reconstruction meeting held in Rome, international donors indicated that they are willing to assist SADC to establish a regional disaster management mechanism and all they required was a good framework of the needs to solicit the necessary funds. Mr Mister confirmed that the UNDP did make an offer to assist in moving things forward. The UNDP had also prepared the necessary terms of reference although they were not aware of the ground work already done by the Working Group. The matter was discussed at length and the following decisions were taken:
 - a. The Working Group accepted the offer of assistance from the UNDP.
 - b. That the UNDP experts be tasked to develop a framework for a SADC mechanism.
 - c. That the UNDP experts make contact with the Working Group members when visiting the respective countries. Members will assist in providing contacts in the countries that are not part of the Working Group.
 - d. That all fourteen SADC member countries must be involved in the proposed mechanism.

2. The UNDP undertook the task of compiling a needs assessment of the whole Region.

2. Conclusion

- 2.1 It is of cardinal importance that a SADC regional disaster management mechanism be established as soon as possible to deal effectively with disasters in the region.
- 2.2 For this purpose the SADC Committee on Disaster Management, as decided upon by the Council of Ministers in Namibia during August 2000, should do what they see the most expedient way to establish such a Unit, but taking into account the work that has been done by the Working Group.
- 2.3 The Chairperson of the Working Group wishes to thank all the representatives of the member States for their contributions during the deliberations on this very important subject.

SADC Health Sector Disaster Management

SADC Health Sector

Disaster Management

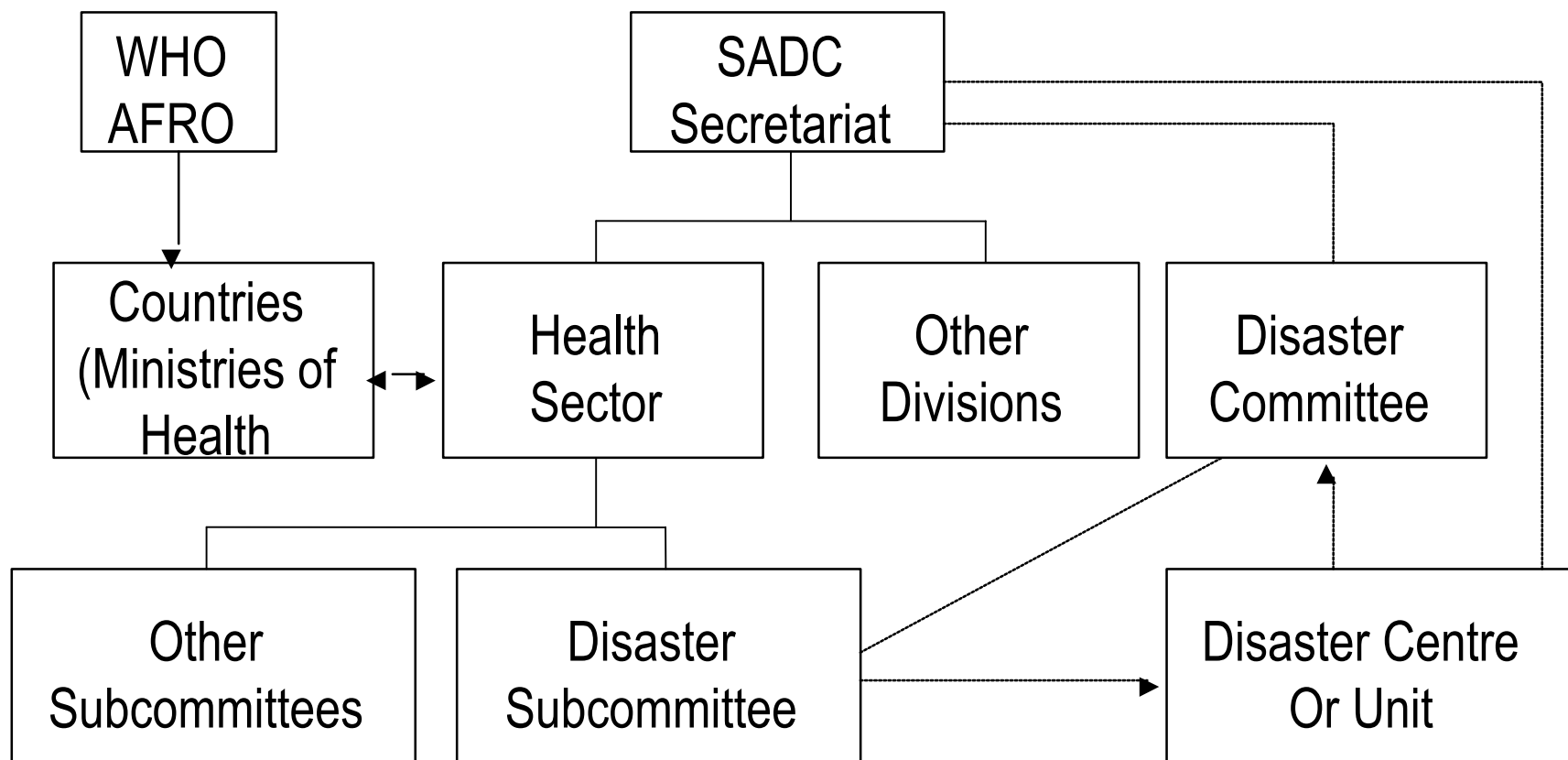
Presented by Marcelino Lucas

Background

- ❑ Meeting of the Ministers of Health in Maputo (May 2000)
 - Dliberation on the creation of the Disaster Subcommittee (Note: There are other subcommittees)
- ❑ Meeting of the Subcommittee in Pretoria (August 2000)

Objectives of the August Meeting

- ☐ To develop a SADC health policy for disaster management;
- ☐ To encourage Member States to develop policies and plans for disaster management;
- ☐ To build capacity within Member States to adequately respond to disasters;
- ☐ To maintain a health resource database;
- ☐ To develop strategies for rapid inter- and intra-country support systems.



Crucial Issues

- ❑ How does one combine WHO and SADC strategies? (EPRs and Emerg. Managers)
- ❑ How to deal with different stages of DM in the countries?
- ❑ Lack of clarification on some issues (emergency Vs Disasters Vs Epidemics)
- ❑ Other technical issues (e.g., Minimal drug stocks, Rapid response teams, etc.)

Thank You

SADC Health Sector Strategic Plan For Disaster Management

1. Introduction

Cyclones carrying heavy rains characterised the onset of the year 2000 in the Southern African region. Five SADC member states suffered the worse floods of the last 50 years. Human lives, crop fields and livestock were lost; infrastructure and environment were damaged beyond repair but fresh construction. In average the floods retarded regional development by at least 5 years. Approximately US\$1.5 billion is required for rehabilitation, resettlement of displaced person, control the spread of diseases set on by the catastrophe.

The low level of preparedness was found to be the major factor contributing to the negative impact of the floods. Despite huge regional and international assistance, the cyclones still caused destruction.

The intervention of the health sector so critical to minimise the effect of casualties was too ad hoc. Foreign assistance was not properly screened thus resulting in the distribution of drugs close to their expiry dates. Medical personnel were not properly deployed according to requirements and experience.

The overall evaluation of the performance of various sectors in the floods disaster response found that coordination was problematic and there was not a response system in place to maximise the resources available.

2. Background

As a result of the floods, the Committee of Ministers of Health met to strategize the best way to respond not only to current but also to future disaster.

It is to be recalled that article 25 of the SADC Health Protocol provides that “State Parties shall a) co-operate and assist each other in the co-ordination and management of disasters and emergency situations; b) collaborate and facilitate regional efforts in developing awareness, risk reduction, preparedness and management plans for natural and [man-made] disasters; and c) develop mechanism for co-operation and assistance with emergency services.”

In line with the above provision, the strategic programme of the Health sector regarding disaster management outlines that its main policy objective are in line with WHO guidelines. The objectives are to:

- a. “Ensure that disaster awareness and preparedness plans are developed in order to be able to deal efficiently and effectively with the impact of disasters when they occur;
- b. Develop emergency medical services which will assist in the immediate management, containment and cost effective overall management of disasters;
- c. Develop counselling and support services and organisations which can assist those who survive disasters, particularly where the disaster is long term and communities are prevented from normalising their lives;
- d. Assist with programmes to deal with the effects of disaster; and
- e. Establish a coordinating structure to produce plans for stand-by disaster assistance and management in the region.”

The program also established priorities that include:

- a. Ensure disaster preparedness and response plans were developed by appropriate agencies;
- b. Promote public awareness programmes; and
- c. Define mechanism for inter-country rendering of assistance, including access to emergency medical services.

In the process “of disaster preparedness, SADC held two seminars in 1998 with the assistance from the UN Office for the coordination Humanitarian Assistance (OCHA) and sponsored by the US government. The participants recommended the creation of regional disaster coordination mechanism and created an ad hoc working group to assist in the process.

At its meeting held in August 1999, in Maputo Mozambique Council approved the creation of the ad hoc working group chaired by South Africa. Council directed that the Health Sector should be part of the group.

Within the framework of the disaster preparedness in the SADC region the health sector convened a technical meeting from 15 to 16 August 2000 to draft the health component of the SADC disaster management strategy.

3. Situation Assessment

Various organisations and countries individually have carried out assessment missions to establish the degree of vulnerability and types of disaster hazards the region/country is prone to.

Accordingly, it is beyond reasonable doubt that the SADC region is prone to natural, human-made, human-induced and creeping disasters.

Natural disasters include cyclones, floods, landslides, earthquakes (in minimal scale), drought, fire, locusts and *epidemics*; *Human* made account for epidemics, fire, train and plain crashes, motor vehicle accidents, mining, industrial, terrorism, oil and chemical spill, ferry sinking and war~ Human induced encompass deforestation, agricultural practices and global warming; and creeping disasters Motor Vehicle Collision and HIV/AIDS.

Natural are ubiquitous in the region and they are mostly sudden whereas human made or induced are of slow onset nature. Thus, it is crucial to develop plans that cater for prevention and problem solving. HIV/AIDS pandemic, while not falling under the category of disaster in the sense of sudden onset and mass human dislocation, the fact that communities are unable to cope with it by their own means, it should be categorised as disaster.

The infrastructures of the region are unevenly developed. This presents serious bottlenecks for disaster response in remote areas. Thus, the health sector will advocate for alternative communication infrastructures and settlement practices to ensure that areas of high agglomeration of people are easily accessible and are equipped with adequate health services.

4. The Plan of the Health Sector

4.1 Aim

The aim of the plan is to ensure that the SADC Health Sector is adequately prepared to manage all types of disasters within the region in order to minimise the effect of the disaster on the health status of the people.

4.2 Objectives

The objective of the plan include:

- To develop a SADC health policy for disaster management;
- To encourage Member States to develop policies and plans for disaster management;

- To build capacity within member states to adequately respond to disasters;
- To maintain a health resource database;
- To develop strategies for rapid inter & intra country support systems.

4.3 Activities

To achieve the above objectives the health sector shall undertake a variety of activities, which are consistent with the disaster management circle, *viz*:

- Risk reduction–development;
- Mitigation;
- Preparedness;
- In-disaster management;
- Response/relief; and
- Recovery/reconstruction.

The specific tasks/strategies under each overall activity are as outlined below:

4.4 Risk Reduction (Development)

- Health promotion;
- Immunisation;
- Advocacy role for human development;
- Early warning systems (epidemiological, community based awareness and meteorological);
- Environmental Health (hazard mapping, promotion and establish procedures-regulations, i.e. waste management and building regulations;

4.5 Mitigation

- Health promotion;

- Information, education & communication;
- Insurance advocacy;
- Good building practices;
- Promotion of Eco-Villages;
- Environmental health impact assessment.

4.6 Preparedness

- Situation analysis (hazards mapping, vulnerability assessment, capacity building and needs assessment);
- Disaster management plans (Hospital contingency plans and community preparedness);
- Simulation exercises;
- Training (assessment of applicable available courses, training trainers, information system, advocacy and media);
- Identify international co-operating partners;
- Policy formulation (inter-Sectoral collaboration -inter & intra-country support i.e., MOU, ensure political commitment and development of legal norms);
- Inter & intra country mobilisation strategy (personnel, health response teams, acquisition of resources, reserve funds and resources, establish systems for resource mobilisation i.e. procurement procedures, personnel deployment and logistics);
- Education (school curriculum);
- Early warning system (community based awareness, epidemiological assessment, water purification, etc).

4.7 In-disaster management

- Screening and accreditation of international medical aid;

- Deployment of personnel and Drug distribution;
- Provision of first aid treatment of casualties and post-first aid medical attention;
- Determination of reference sites;
- Organisation and management of health facilities for emergency assistance;
- Inspection and certification of donated medical and food supplies;
- Counselling victims;
- Sanitation and water treatment;
- Management of corpses.

4.8 Recovery

- Additional health programmes;
- Environmental health restoration strategies;
- Disease and epidemic surveillance;
- Nutritional programmes and strategies;
- Impact assessment;
- Rehabilitation strategies for health facilities and services;
- Counselling and social reintegration;
- Resource mobilisation.

4.9 Response

- Implementation of health plans;
- Inter-states access process;
- Coordination with national disaster management agencies;

- Monitoring, evaluation and information assessment;
- Deployment of support services (health services & emergency medical teams);
- Deployment of rapid rescue medical personnel;
- Environmental health restoration strategies;
- Counselling.

5. Final Considerations

As it will be observed, this plan only focuses on the health component of disaster management. It is expected that when the integrated SADC disaster management plan is finalised, the health sector is adequate and clearly catered for.

The plan is not therefore, final. It will benefit from the debate and harmonisation of the regional plan to avoid unnecessary duplications.

The final format of the plan shall have to include the role players and approximate cost estimate for the emergency contingency plans. This cannot be included here because it requires details can only be obtained through a specific Sectoral assessment.

It is recommended that SADC should move fast and steadily to finalise the regional and implementation of the Council decisions taken in August 2000 in Windhoek, Namibia.

SADC Water Sector

SADC – Water Sector

Floods and Droughts Management Programme

□ The Approach

- Assessment of the Current Situation
 - Identification of Best Practices
 - Identification of Gaps and Short-comings
 - Identification of Intervention Needs
- Consultation With Different Players and Stakeholders
 - Who is doing what
 - How can we best contribute
 - How can we build synergies

SADC – Water Sector

Floods and Droughts Management Programme

❑ The Way Forward

- Development of a Framework for the Sectoral Floods and Droughts Management Programme
- Discussion and Consensus Building among Players / Stakeholders on the Role of the Water Sector
- Programme Development / Fine Tuning
- Resource Mobilization / Implementation

SADC – Water Sector

Floods and Droughts Management Programme

❑ Critical Requirements

- Financial Resources
- Technical Support / Capacity Building
- Coordination / Collaboration Between the Different Players / Stakeholders

SADC – Water Sector

Floods and Droughts Management Programme

❑ Objectives

- To establish a System and Mechanisms to Enable Timely Access to Critical Hydrological Information
- To Contribute to a Coordinated Effort to Manage Water Related Disasters in the SADC Region
- To Reduce / Prevent Loss of Life and Economic Disruption

Famine Early Warning System Network (FEWS)



**FAMINE
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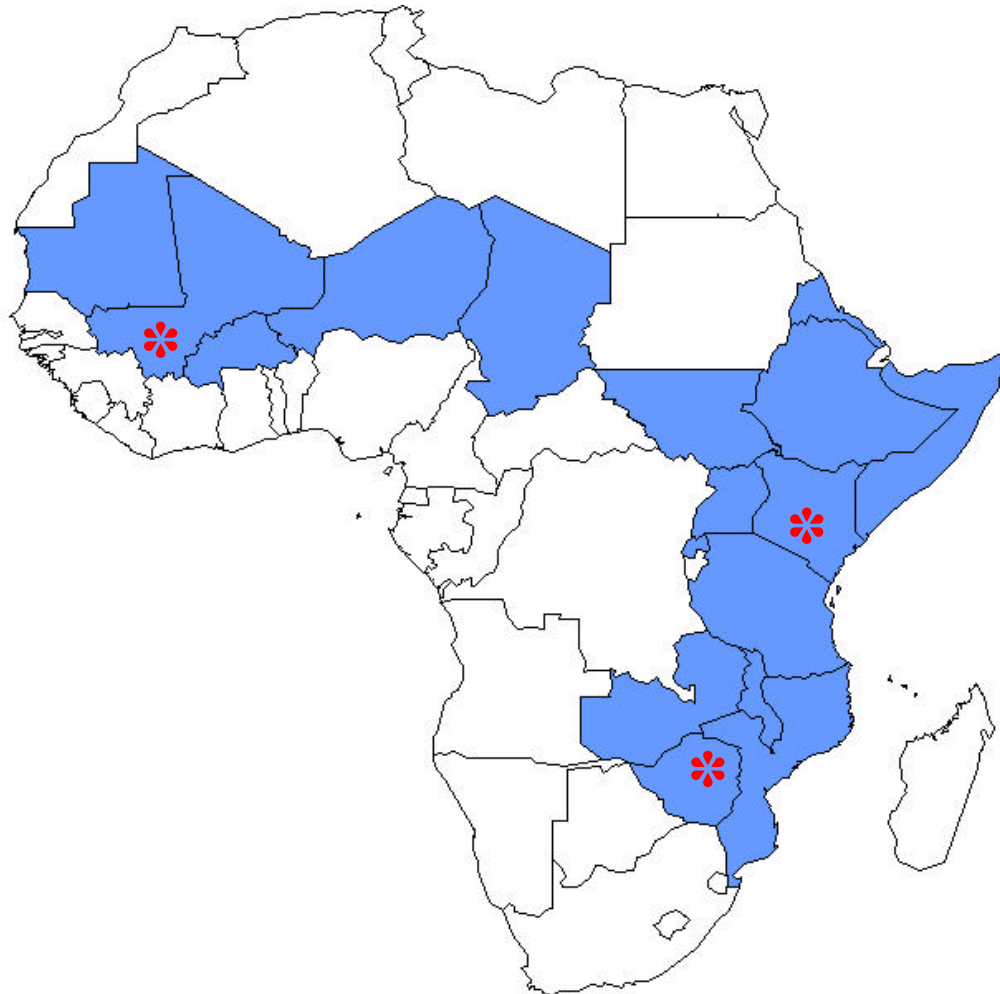


United States
Geological Survey



FEWS NET COVERAGE

- FEWS NET has resident representatives in 17 African countries
- FEWS NET also provides regional coverage from Harare, Bamako and Nairobi





THE FEWS NET VISION

To strengthen the abilities of African countries and regional organizations to manage threats of food insecurity, through the provision of timely and analytical early warning and vulnerability information.



FEWS NET ACTIVITIES/INSTRUMENTS

- ✓ **State of the art early warning and remote sensing information.**
- ✓ **Monthly reports/web site/e-mail summaries with analytical content.**
- ✓ **Assistance for preparedness and response planning.**
- ✓ **Food Economy analytical tools, workshops and training.**
- ✓ **Surveying and building of networks at all levels with a focus on dialogue and consensus.**
- ✓ **Special Studies, such as urban food insecurity, the impact of HIV/AIDS, the impact of conflict, etc.**



FEWS NET Food Security Analytical Framework

Hazard Information

+ VA baseline →

Risk/Outcome Analysis

FEWS NET
aims to improve...

the production and analysis of existing data sets; and of remote sensing information (RFE, NDVI, CWSI, etc.)

BY... working with national government partners, regional institutions & other net-work partners who concentrate on early warning information; and by strengthening local capacity where possible

FEWS NET
aims to improve...

the quality of information on livelihoods and local economies with an appropriate geographic focus (*where?*) and economic status focus (*who?*)

BY... maximizing opportunities for building baseline vulnerability profiles, and by strengthening the capacity of our partners where appropriate

FEWS NET
aims to improve...

the analysis of how different types of changes affect different households, helping to explain why certain people are affected, and what can be done about it.

BY... actively participating in networks designed to reach decision-makers with policy and program-relevant information and analysis



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Famine Early Warning System Network

Horn of Africa Update

A livestock trade embargo threatens to undermine precarious food security in the Greater Horn. (Oct 20, 2000) [\[Click here for full update\]](#)

Sahel/Western Africa Update

First estimates of 2000/01 cereal production in the Sahel range between 9.1 and 10.4 million MT. (Oct 30, 2000) [\[Click here for full update\]](#)

Southern Africa Update

Above-normal to normal rains are forecast for the 2000/01 rainy season in southern Africa. (Oct 25, 2000) [\[Click here for full update\]](#)

Country Updates

Greater Horn of Africa

- Eritrea** The main harvest, starting now in the highlands, will drop sharply below last year's harvest (Nov 15, 2000)
- Ethiopia** Poor rainfall distribution along Ethiopia's border with Somalia threatens pastoralist food security (Nov 15, 2000)
- Kenya** Successive poor production seasons in pastoralist areas continue to erode livelihoods (Oct 15, 2000)
- Rwanda** Crop Season A has started in the higher altitudes but rains elsewhere are too patchy for planting (Oct 15, 2000)
- Somalia** Saudi Arabia imposes ban on imports of livestock from Somalia

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Zambia Private suppliers have adequate seeds and fertilizers to sell, but government fertilizer loans are late (Oct 20, 2000)

Zimbabwe Food price increases, on top of fuel price increases last month, spark 3 days of consumer riots (Oct 20, 2000)

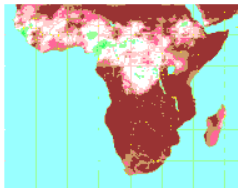
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METEOSAT Rainfall Estimation



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- [The Africa Data Dissemination Service, USGS](#)
- [Climate Prediction Center - Africa Desk, NOAA](#)
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Applying GIS Information and Analysis for Disaster Preparedness

